

CLAIMS

1. A prime mover control device of a construction machine that includes:
- 5 a hydraulic pump driven by a prime mover;
a hydraulic traveling motor driven with pressure oil output from the hydraulic pump; and
a control valve that controls a flow of the pressure oil from the hydraulic pump to the hydraulic motor in response
10 to an operation of an operating member, comprising:
a deceleration detection means for detecting a deceleration operation at the operating member;
a rotation speed detection means for detecting a rotation speed of the hydraulic motor; and
15 a prime mover rotation speed control means for executing speed reduction control of the rotation speed of the prime mover based upon detection results provided by the rotation speed detection means if the deceleration operation is detected by the deceleration detection means and for controlling the
20 rotation speed of the prime mover in correspondence to an operation of the operating member which is detected to be other than the deceleration operation.
2. A prime mover control device of a construction machine
25 according to claim 1, wherein:

when the deceleration operation is detected by the deceleration detection means, the rotation speed of the prime mover is sustained at a constant level if the motor rotation speed detected by the rotation speed detection means is greater than a predetermined value and the rotation speed of the prime mover is gradually reduced if the detected motor rotation speed is equal to or less than the predetermined value under the speed reduction control executed by the prime mover rotation speed control means.

10

3. A prime mover control device of a construction machine according to claim 1, wherein:

when the deceleration operation is detected by the deceleration detection means, the rotation speed of the prime mover is gradually reduced over a predetermined length of time and then following the predetermined length of time, the rotation speed of the prime mover is sustained at a constant level if the motor rotation speed detected by the rotation speed detection means is greater than a predetermined value but the rotation speed of the prime mover is gradually reduced if the detected motor rotation speed is equal to or less than the predetermined value, under the speed reduction control executed by the prime mover rotation speed control means.

15

20

4. A prime mover control device of a construction machine according to claim 1, wherein:

when the deceleration operation is detected by the deceleration detection means, the rotation speed of the prime mover is gradually reduced by a predetermined degree, and after the rotation speed of the prime mover is reduced by the predetermined degree, the rotation speed of the prime mover is sustained at a constant level if the motor rotation speed detected by the rotation speed detection means is greater than a predetermined value but the rotation speed of the prime mover is gradually reduced if the detected motor rotation speed is equal to or less than the predetermined value, under the speed reduction control executed by the prime mover rotation speed control means.

15

5. A wheeled hydraulic excavator, comprising:

a hydraulic pump driven by a prime mover;

a hydraulic traveling motor driven with pressure oil output from the hydraulic pump;

20 a control valve that controls a flow of the pressure oil from the hydraulic pump to the hydraulic motor in response to an operation of an operating member; and

a prime mover control device according to any one of claims 1 through 4.